

LETTER TO THE EDITOR

Skin irritation because of electrocardiograph lead in patients in intensive care unit

Dear Editor,

Patients in intensive care unit (ICU) are haemodynamically unstable. All of them are being monitored with advanced apparatus system. An important part of monitoring critically ill patients is cardiac monitoring; therefore, ICU nurses attach electrocardiograph (ECG) to the patient, usually in five points of the chest, using five chest leads. These leads include red, green, black, yellow and white which will be attached on right upper part, right lower part, left lower part, left upper part and sternum, respectively. Chest leads are not changed routinely and may stay attached to the patient's skin for 2–3 days.

In this article, we report that those parts of body, which are attached to chest leads are at risk for allergic skin reaction. A 67-year-old woman with intracerebral haemorrhage (ICH) admitted to ICU was selected for this study. She was in ICU for 17 days. Her breathing was with tracheostomy tube, and T tube was delivering 60% O₂. The position of patient was supine, head of bed was elevated by 30° and the vital signs at the time of skin irritation were: blood pressure (BP) 185/110, pulse rate (PR) 83, saturated oxygen (Sa O₂) 89 and axillary temperature (T) 36.7. The patient had received morphine, midazolam, nitroglycerin, furosemide, manitol and Enoxaparin (Clexane) at 16th night. In the next morning (17th day), the nurse reported an allergic skin reaction in the yellow lead site. After assessing the patient's skin, it has been found that skin irritation was caused by (yellow) chest lead (Figure 1).

Patients of ICU are always at risk of rare skin problems such as pressure ulcer because of their unconsciousness or

being sedated (1–3); therefore, they are unable to self-report their skin problems. Our patient showed that even chest lead could result in skin problems, which in turn increases the responsibility of ICU nurses to consider more skin care in critically ill patients.

Hossein Rafiei¹, Masood Amiri²
& Jafar Moghaddasi¹

¹School of Nursing and Midwifery,
Shahrekord University of Medical Sciences,
Shahrekord, Iran

²Department of Epidemiology and Biostatistics,
School of Health,
Shahrekord University of Medical Sciences,
Shahrekord, Iran
hosseinrafiei21@yahoo.com

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Figure 1 Skin irritation with electrocardiograph lead.